at 22 inches from the centre of the shoulder joint, we obtain for the value of α,

$$\alpha = 5{\cdot}56 \text{ lbs.} \pm 0{\cdot}125 \text{ (probable error)}.$$

This result agrees remarkably well with the result $\alpha = 5{\cdot}68$ lbs., obtained by calculations founded on the Law of Fatigue, from the long series of observations detailed in this note.

V. "On the Absence of Potassium in Protagon prepared by Dr. Gamgee." By H. E. Roscoe, LL.D., F.R.S. Received April 29, 1880.

Protagon is stated by Gamgee to contain no potassium. Thudichum, on the other hand, asserts that this body contains from 0·7 to 1·6 per cent. of this metal.

In order to ascertain the quantity of potassium contained in protagon prepared by Gamgee, 5 grams of this material was completely burnt, leaving a residue of 0·177 gram, consisting chiefly of metaphosphoric acid. On precipitating the potassium in the usual way, and on decomposing the platinochloride, a residue of 0·003 gram of platinum was obtained; this corresponds to a percentage of 0·0236 of potassium on the protagon employed.

Spectroscopic experiments, made upon solutions of the chloride and phosphate of potassium, and upon a solution of the latter salt with the addition of the relative quantity of phosphoric acid present in the ash, according to the above analysis, convinced me of the correctness of the conclusions contained in my letter printed on page 113, vol. 30, of the "Proceedings of the Royal Society."

The Society adjourned over Ascension Day to Thursday, May 13.

Presents, April 8, 1880.

Transactions.

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